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JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 16. November, 1914. No. 191.

THE REDISCOVERY OF AN HISTORIC COLLECTION OF MASSACHUSETTS PLANTS.

F. G. Floyd.

My time afield during the past summer was spent in Amherst, Massachusetts. In excursions, taken from that point as a centre, I found several plants of interest. For instance, *Coronilla varia* L. was new to me. It was well established and abundant at one point. On Sugar Loaf Mountain at the north and on one of the Holyoke Range on the south I found *Asclepias verticillata* L. At two places I observed *Asclepias tuberosa* L., the plants being very robust and the flowers strikingly handsome orange. *Potentilla recta* L. was seen once and *Lysimachia vulgaris* L. was collected by the roadside not far from the College. This last is a species not listed in recently published Catalogue of Amherst Plants by Prof. Stone. *Specularia perfoliata* (L.) A. DC., also new to me, was found in abundance on some of the mountains.

But what interested me as much as anything was the finding of an old and historic herbarium of significance in relation to our state flora. In the Appendix of the Seventh Annual Report of the Massachusetts Board of Agriculture is a "Catalogue of Plants" (the publication mentioned as no. 126 of Miss Day's List of Local Floras of New England). It has been thought that this Catalogue of Plants, which is nothing but a bare list of names, was an attempt at a flora of Massachusetts. On page 139 of the above Report it is seen, however, that at one time there existed what was known as the State Cabinet or Agricultural Museum, consisting of actual specimens and embracing other branches of natural history as well as botany, it being stated that the "Catalogue of Plants" is in reality a list of the specimens of a botanical nature contained in the State Cabinet.

This much I knew before reaching Amherst. I had already made inquiry at every likely place in Boston and vicinity and had not been able to discover this old herbarium. However, somebody at the State House seemed to remember that it had been turned over to the Massachusetts Agricultural College. Therefore, when I found myself at Amherst, I took the first opportunity to look up the College Herbarium and make inquiries. I found Prof. Stone, one of the members of our New England Botanical Club, in charge, and on explaining my quest he directed me to certain cases that contained an ancient herbarium, turned over to the College many years ago, which he thought came from the State House in Boston.

He very kindly placed the facilities of the laboratory at my service and later I examined the collection carefully. The plants have been kept intact, that is as a distinct collection. I compared them sheet by sheet with the published list in the Agricultural Report, which I obtained from the College Library and found an exact agreement — that is to say, every plant listed in the Catalogue had a representative, at least one sheet, in the herbarium, and I did not find any plants in the herbarium that were not given in the list. So I am convinced that the collection at Amherst is the old "State Cabinet" and that the botanical specimens are the basis of Flint's "Catalogue of Plants," published in the Seventh Annual Report of the Massachusetts Board of Agriculture.

The specimens are stuck to sheets of soft bibluous paper with strips usually. Each sheet has two labels, one loose with a heading "Mass. State Herbarium" and the botanical name, the other pasted on the sheet and written in a different hand gives the botanical name, common name, date and sometimes the locality. I could not examine the entire collection in detail. Of the few that I did examine more particularly the following had localities indicated.

Juniperus virginiana L. Lincoln, June 14, 1834, near Flint's Pond.

Juniperus virginiana L. Malden.

Pinus resinosa Ait. Dr. Stearns, Sudbury. A botanical description of which I cannot find in any elementary works.

Typha angustifolia L. Charlestown.

Holcus odoratus L.

Poa aquatica, Malden, meadows, wet, 4 June, 1829.

Poa nervata, Malden, meadow, 4 June, 1828.

Ranunculus Cymbalaria, Chelsea, Brighton, C. River salt marsh.

This State Cabinet or, as it is called, Massachusetts State Herbarium is not mentioned in Miss Day's article "The Herbaria of New England," published in Vol. 3 of RHODORA. Now that the resting place of the collection has been located it is probable that a more careful examination of it than I was able to make would be well worth while.

WEST ROXBURY, MASSACHUSETTS.

A NEW MARITIME POLYGONUM FROM NOVA SCOTIA.

M. L. FERNALD.

IN 1913 the writer pointed out[1] that the large-fruited glaucous *Polygonum* of the coastal sands of the eastern United States is *P. glaucum* Nutt., not *P. maritimum* L. for which it had long been mistaken; and that about the Gulf of St. Lawrence these large-fruited strand species are represented by *P. Raii* Babington, which is also found on the Bras d'Or Lakes of Cape Breton.

During the past July, finding it necessary to "kill time" for twelve hours between North Sydney and Pictou, Nova Scotia, Mr. St. John and the writer fortunately selected Grand Narrows on Bras d'Or Lake as a desirable place to investigate. There, on the gravel beach, *P. Raii* was abundant, as we had expected; but the chief surprise of our day was another large-fruited species growing with it in the gravels and quickly distinguishable as far as it could be seen by its color, the leaf-outline and the comparatively inconspicuous perianths, in which it strongly contrasted with the very glaucous and conspicuous *P. Raii.* The peculiar plant proves to be unique in the group to which it belongs, presenting characters which ally it to *P. Raii* on the one hand and to *P. Fowleri* Robinson on the other but which clearly separate it from each. It is here proposed as

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[1] RHODORA, XV. 68–73 (1913).

Polygonum **acadiense**, n. sp., annuum prostratum paulo vel vix glaucum rubro-viride, caulibus gracilibus, internodiis 1.5–3.5 cm. longis; ochreis internodo multo brevioribus 1–1.3 cm. longis albido-hyalinis basi purpurascentibus remote circa 6-nerviis ovato-oblongis acutis adpressis demum bipartitis lacerisque; foliis lineari-oblanceolatis acutis submembranaceis subtus 1-nerviis, primariis 2–4.5 cm. longis 2–7 mm. latis petiolo 3–8 mm. longo; axillis 1–3-floris; pedicellis calycem subaequantibus apice valde articulatis; calyce 4 mm. longo turbinato-campanulato profunde 4–5-partito, lobis oblongis obtusis subaequalibus margine albido- vel roseo-petaloideo basi non angustatis; achenio olivaceo lucido ovato-lanceolato 6 mm. longo 2–3 mm. lato a calyce arcte amplectente valde exserto.

Annual, prostrate, slightly or scarcely glaucous, reddish-green; the stems slender; the internodes 1.5–3.5 cm. long: ochreae much shorter than the internodes, 1–1.3 cm. long, white-hyaline, purplish at base, remotely about 6-nerved, ovate-oblong, acute, appressed, finally 2-parted and lacerate: leaves linear-oblanceolate, acute, submembranaceous, 1-nerved beneath; the primary 2–4.5 cm. long, 2–7 mm. wide, with petiole 3–8 mm. long: axils 1–3-flowered: pedicels about equaling the calyx, obviously articulated at apex: calyx 4 mm. long, turbinate-campanulate, deeply 4–5-parted; the lobes oblong, obtuse, subequal, with white- or roseate-petaloid margin, not narrowed at base: achene olivaceous, shining, ovate-lanceolate, 6 mm. long, 2–3 mm. wide, closely invested by the calyx, conspicuously exserted.—Nova Scotia: gravelly strand of Bras d'Or Lake, Grand Narrows, Cape Breton, July 20, 1914, *Fernald & St. John*, no. 11,042 (type in Gray Herbarium).

Nearest related to *P. Raii* which has much more glaucous mostly oblong-lanceolate leaves, shorter ochreae (3–8 mm. long) with brownish rather than purple bases, much more petaloid and broader less appressed oval overlapping sepals and shorter broader and darker achenes (4.5–5.3 mm. long, 3–3.5 mm. broad). On the strand at Grand Narrows *P. acadiense* and *P. Raii* were growing together. The material of *P. Raii*, collected and pressed at the same time as the other, remained in press several weeks and lost essentially no foliage; but the material of *P. acadiense* was completely dry in five days and many of its leaves had disarticulated.

P. acadiense has the calyx and the olivaceous exserted achene similar to those of *P. Fowleri* Robinson, but in that species the achene is very broadly ovate and only 4 mm. long; the more fleshy short leaves are elliptic to broadly oblanceolate, with rounded tips; and the broad flaring obscurely nerved ochreae are only 3–6 mm. long.

In the form of its sepals and achenes *P. acadiense* is similar to *P.*

exsertum Small; but that species, which abounds on some of the salt marshes of Nova Scotia and New Brunswick, is a tall erect plant with brown many-nerved ochreae, and with the narrower shorter sepals alternately long and short, the outer or longer ones comparatively firm and green.

Gray Herbarium.

NOTES ON THE FLORA OF THE PENOBSCOT BAY REGION, MAINE.

Albert F. Hill.

The following plants collected for the most part during the summer of 1913 at various places about Penobscot Bay seem worthy of note chiefly as regards their distribution. Extensions of ranges are based on the distribution of the plants as shown by the material in the Gray Herbarium and the herbarium of the New England Botanical Club.

Juniperus horizontalis Moench. Additional stations to those cited for this region by Norton in Rhodora for August, 1913, are Isle au Haut and Swans Island where the plant is very common, forming large colonies on exposed granite sea cliffs.

Pinus rigida Mill. The common Pitch Pine of southern New England occurs at almost its northern limit in this region. In addition to several stations on Mount Desert it is common on the sterile slopes of Mt. Champlain at Isle au Haut and at several localities on the mainland at Brooklin.

Agrostis alba L., var. aristata Gray. This rather uncommon variety was collected on the shady bank of a stream at Brooklin. Only four other Maine stations are represented in the above herbaria.

Ammophila arenaria (L.) Link. Owing to the rocky nature of the coast and the consequent scarcity of sand dunes this plant, so common to the south and in the Maritime Provinces, has hitherto been unreported from the region east of Knox County in Maine. Only one small station was found on the southern side of Swans Island.

Elymus virginicus L., var. hirsutiglumis (Scribn.) Hitchc.

Two collections made in Brooklin are the first reported for the state. However, part of the material in the Mount Desert Herbarium passing as the typical form is in reality this variety.

Agropyron repens (L.) Beauv., var. pilosum Scribn. This plant reported occasionally from various localities in the state seems to be rather common in this region. Collections were made at Swans Island, Isle au Haut and Deer Isle, all on sea beaches.

Scirpus cyperinus (L.) Kunth. This sedge is known from Penobscot County southward and southwestward with isolated stations at Mount Desert and Isle au Haut.

Scirpus pedicellatus Fernald. As represented in the above herbaria this plant has an interesting distribution. It is common across the northern part of the state and on the coast as far east as Kennebec County. It reappears again around Penobscot Bay. Miss Furbish found it at Swans Island and two collections were made this year at Isle au Haut.

Carex canescens L. While common inland in Maine, this plant is much more restricted on the coast than the varieties. It has been collected only at Cutler, Brooklin and Swans Island.

Carex stellulata Good., var. angustata Carey. Until now the only recorded coastal station for this common inland plant has been Mount Desert. To this may be added a station at Flyes Point, Brooklin.

Carex salina Wahlenb., var. kattegatensis (Fries) Almq. A fifth Maine station at Brooklin can now be added to those at Lubec, West Pembroke, Waldoboro and Chebeague Island.

Juncus Greenei Oakes & Tuckerm. With the exception of a few Mount Desert stations, Brooklin is the eastern limit of this rush.

Betula lutea Michx. f. In his article on "Woody Plants of Brooklin, Maine" in Rhodora for September, 1910, A. H. Graves does not include the yellow birch in the list. There are several stations in Brooklin and the tree is also common on the islands.

Quercus rubra L., var. ambigua (Michx. f.) Fernald. The only fruiting Red Oak seen at Brooklin was this variety and it is quite likely that the other trees, all of which were close at hand, will prove to be the same.

Arenaria peploides L., var. robusta Fernald. Norton, in his article above referred to, states that this plant is strictly local and cites a few stations on the outer islands. The plant is quite frequent at Brooklin, occurring where there is the least semblance of a sandy beach. There are also several plants of the same variety on Swans Island.

Ranunculus laxicaulis (T. & G.) Darby. This was collected in a muddy pond hole at South Deer Isle, its easternmost station. Norton reports the plant from apparently the same locality.

Camelina sativa (L.) Crantz. This plant occurs sparingly as a weed in the northern section of Maine, but has not been reported on the coast east of York. It was fairly abundant in a potato field at Brooklin.

Erysimum cheiranthoides L. This has a similar range in the state. It was found in profusion on a sandy barrier beach at Flyes Island, Brooklin. The only other coastal station in the two herbaria is Cumberland.

Sisymbrium officinale (L.) Scop. The second Maine station for this plant is a sandy beach at Swans Island Head. Previously it had been known only from Brownville.

Crataegus Jonesae Sarg. This thorn, described from Mount Desert and very common on the western shore of Penobscot Bay, is equally common at Brooklin and on the islands. It has been also recorded from Washington County.

Lathyrus palustris L., var. pilosus (Cham.) Ledeb. The distribution of this plant as shown in the two herbaria is interesting. It occurs from Eastport along the coast to Mount Desert but is unrepresented from the area between there and the coast of Massachusetts. It is very abundant in the Penobscot Bay region, both on the mainland and the islands.

Rubus pubescens Raf., var. pilosifolius A. F. Hill. The pubescent variety of the dwarf raspberry was first collected at Brooklin.

Empetrum nigrum L. This is reported as 'local' by Norton and 'rare' by Graves, but it is very common on headlands and exposed granite rocks, more so on the outer islands than on the mainland.

Corema Conradii Torr. This is extremely common on rock outcrops at Swans Island and at Brooklin, where it is found, not in a bog in the Central Tract as Graves states, but on rocks at the edge of the bog. It has been previously reported from Isle au Haut.

Ilex verticillata (L.) Gray, var. padifolia (Willd.) T. & G. This was found very frequently at Brooklin and on the islands, though there had been no specimens from the state in the herbaria before.

Examination of the Mount Desert material shows much of it to be this variety.

Decodon verticillatus (L.) Ell., var. laevigatus T. & G. The stations for this variety at Isle au Haut and Deer Isle are northeastward extensions from Kennebec County.

Epilobium adenocaulon Haussk., var. perplexans Trel. A collection at Hat Island near Swans Island is the first made in the state.

Cornus canadensis L., var. intermedia Farr. A bunchberry collected in dry soil on the sterile slopes of Mount Champlain on Isle au Haut proves to be this variety, which has been known in the East only from Labrador and western Newfoundland.

Vaccinium atrococcum (Gray) Heller. This has hitherto been known from Orono and from Knox County southwestward. It is very abundant in a sphagnum bog at Brooklin and in several swamps on Deer Isle.

Mertensia maritima (L.) S. F. Gray. Swans Island and Isle au Haut may be added to the list of stations for this plant in Norton's list. It is interesting to note that in this region at least, the plant occurs only on the outer islands on the more exposed headlands or beaches.

Achillea lanulosa Nutt. The Swans Island material is the first collection of this plant made in Maine.

Yale University.

A NORTHERN VARIETY OF ASTER LINARIIFOLIUS.

M. L. Fernald.

The handsome rigid-leaved *Aster linariifolius* is found somewhat generally on arid or sterile, gravelly or sandy soils throughout the eastern United States, extending northward in the northeast to Lake Champlain, Vermont, Grafton County, New Hampshire and southern Somerset and Penobscot Counties in Maine; i. e. in New England its northern limit is at about latitude 45°, its eastern limit at the Penobscot Valley. North and east of this limit *Aster linariifolius* is extremely rare and much of the evidence of its occurrence is open to serious doubt, although it is listed in Macoun's *Catalogue* from three regions: "Newfoundland. (*Cormack.*) Nepisiquit River, N. B. Rather rare. (*Fowler's Cat.*) Three Rivers, Q. (*Maclagan.*)," and in Hooker's *Flora Boreali-Americana* from "Canada. *Mrs. Sheppard.* Newfoundland. *Mr. Cormack.*" Beyond the *Cormack* record there is no other evidence of the plant from Newfoundland and in a detailed survey of Newfoundland botanical data Cormack's records have been found so generally untrustworthy that, without supporting evidence, this one can hardly be accepted as satisfactory. It is highly probable that Cormack had *Erigeron hyssopifolius* which is common along many of the Newfoundland rivers. Fowler's material from the Nepisiguit (or "Nepisiquit") River has not been seen but the locality as given by him, "Pabineau Falls," is highly suggestive of the typical habitat of *Erigeron hyssopifolius*, which is found on the ledges and gravels about the falls of nearly all rivers of the Gaspé Peninsula, northern New Brunswick and northern Maine. The Three Rivers record may with more probability be accepted for *A. linariifolius*, though it is highly desirable that the exact identity of the plant should be determined. But from these notes it is evident that north and east of New England there have been known few, if any, undoubted stations for *A. linariifolius*.

It is, therefore, interesting to find among the collections made in the Province of Quebec during the past summer by Brother Marie-Victorin of the Collège de Longueuil, Longueuil, Quebec, fine material of *Aster linariifolius* from the rocky banks of the River Ste. Anne at St. Raymond, Co. Portneuf, Quebec, somewhat northwest of the city of Quebec. Brother Victorin's material, although clearly belonging specifically with *A. linariifolius*, differs from the typical form of the plant in its less rigid and shorter oblong-linear mostly round-tipped ascending leaves and in having the oblong-linear obtuse bracts of the involucre more herbaceous than in typical *A. linariifolius*. It is a well pronounced geographic variety, with which it is a pleasure to associate the name of its discoverer, who is emulating Provancher and Brunet in making better known to his own people the flora of the Province of Quebec.

Whether the plant of Three Rivers, above referred to, is true *A. linariifolius* or the more northern variety is yet to be determined and this will not prove a difficult task; for, in writing of the plant from Ste. Anne River, Brother Victorin says:

"While travelling on the C. P. R. between Montreal and Quebec, I noticed that very likely this plant occupied an extensive tract of sandy ground between Three Rivers and Champlain. It was then in full flower and I am quite convinced that it was *Aster linariifolius*."

The plant from the Ste. Anne River may be called

Aster linariifolius L., var. **Victorinii**, n. var., humilis 1–1.6 dm. altus; foliis adscendentibus vel patentibus confertis viridibus oblongo-linearibus, longioribus 1.3–1.8 cm. longis 2–4 mm. latis, apice rotundatis, margine ciliolatis; capitulis 1–6; involucris 8–10 mm. altis; squamis subherbaceis oblongo-linearibus ciliatis, apice rotundatis vel obtusis. Quebec: on rocky banks of River Ste. Anne, St. Raymond, Co. Portneuf, August, 1914, *Brother Marie-Victorin*, no. 618 (type in Gray Herb.).

Differing from typical *Aster linariifolius* in its more crowded mostly ascending greener and less rigid short round-tipped leaves and in the more herbaceous bracts, the outer oblong-linear. In typical *A. linariifolius* from New England southward and southwestward, the less crowded spreading or spreading-ascending linear or linear-spatulate leaves are rigid and more pointed, the larger leaves 2–4 cm. long, and at least the outer linear-lanceolate bracts of the involucre taper gradually to acute tips.

Gray Herbarium.

A FORM OF POTENTILLA TRIDENTATA.

Arthur Stanley Pease.

In a dry pasture about four and a half miles south of the village of West Milan, New Hampshire, I collected, on 20 August, 1912, plants of *Potentilla tridentata* Ait. which appear noteworthy from the rather abundant hirsuteness of both surfaces of the leaves. A comparison with material of this species in the Gray Herbarium and the Herbarium of the New England Botanical Club has disclosed other specimens showing, in greater or less degree, the same tendency. This peculiarity is not mentioned by Aiton in his brief description of the plant (a native of Newfoundland) introduced at Kew in 1776,[1] nor shown in the plate accompanying the description.[1] Theodor Wolf, in his *Monographie der Gattung Potentilla* (1908), 77, records no variety or form of the species based upon any character connected with pubescence or hirsuteness. In the absence, therefore, of definite description by the author of *P. tridentata* or of later segregation, the hirsute-leaved plant, which, though apparently not separable geographically or in habitat from typical *P. tridentata*, yet seems to merit some recognition, may be described as

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[1] Hort. Kew. (1789), ii, 216: "P. foliis ternatis cuneiformibus apice trifidis."

POTENTILLA TRIDENTATA Ait., forma **hirsutifolia** n. f., foliis utrimque hirsutioribus.—QUEBEC: Paspebiac lighthouse, 27 July, 1902, *Williams & Fernald;* vicinity of Cap à l'Aigle, 18 July, 1905, *J. Macoun,* no. 67050 (the sheet in the Gray Herbarium containing three plants of the form and two of typical *P. tridentata*). MAINE: Orono, 1880, *K. Furbish;* Summit of Mt. Battie, Camden, 1325 ft., 14 July, 1903, *K. Furbish;* Bar Harbor, *F. H. Peabody;* Southport, 7 Aug., 1894, *M. L. Fernald.* NEW HAMPSHIRE: Dry pasture 4½ miles south of W. Milan village, Milan, 20 Aug., 1912, *A. S. Pease,* no. 13871 (TYPE, deposited in Herbarium of the N. E. Botanical Club). MASSACHUSETTS: Eastern Point, Gloucester, 7 June, 1896, *E. L. Rand & B. L. Robinson;* Princeton, July, 1893, *C. A. Regester.*

Specimens from Orland, Maine, collected by Helen G. Atkins, and Norfolk, Connecticut, collected 27 June, 1906, by C. H. Bissell, show a transitional tendency from typical *P. tridentata* toward this form.

URBANA, ILLINOIS.

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[1] Plate 9. The problematical *P. retusa* O. F. Müller, *Fl. Dan.* V. fasc. 14 (1780) 4, t. 799, described from Greenland, is referred by Willdenow, *Spec. plant.* ed. 4 (1797) ii. 1110, and by other authors, including Wolf, to *P. tridentata* Ait. If this identification were undoubted, the name *P. retusa* would supplant the later *P. tridentata* and would be applicable to the hirsute form here under discussion, for *P. retusa* was described "foliis ternatis, hirtis, apice retuso, tridentato." The original plate, however, shows it to have had broadly obovate bright yellow petals, a character which at once throws doubt upon its identity with the narrower- and white-petaled *P. tridentata.*

TWO NEWFOUNDLAND ANTENNARIAS.

M. L. Fernald.

During the middle of July last, while the number of Rhodora[1] containing descriptions of several Antennarias from Newfoundland was in press, Mr. Harold St. John and the writer had an opportunity to spend a couple of days about Port à Port Bay in western Newfoundland. Practically all of our time was devoted to the limestone tableland, Table Mountain, which rises to the slight elevation of 300 m. above the Bay. Here the two abundant representatives of *Antennaria* were *A. eucosma* Fernald & Wiegand, which was widespread in the turf and humus, and *A. alpina*, var. *cana* Fernald & Wiegand, which abounded on the dry limestone shingle. On one dome of the tableland the plant recently proposed as *A. canadensis*, var. *spathulata* Fernald[2] was in prime development wherever the dry shingle was covered with turf; and on another dome (the northernmost visited) the characteristic *Antennaria* of the shingly barrens was a little whitish plant strongly suggesting *A. alpina*, var. *cana*, but with much smaller heads and milk-white, instead of blackish, involucres. The latter plant is quite unlike any species described from eastern America and clearly distinct from its nearest relative, *A. subviscosa* Fernald, of Rimouski County, Quebec.

Heretofore the only herbarium material of *A. canadensis*, var. *spathulata* has been the three collections cited under the original description, two of them August specimens with shriveled inflorescences, the other a single flowering individual. On Table Mountain the plant was in beautiful flower and an abundance of material was secured which agrees perfectly with the earlier collections and indicates that the plant has strong specific characters to separate it from *A. canadensis* Greene, a species unknown from Newfoundland.

The two species here noted may be called

Antennaria **spathulata** (Fernald), n. comb. *A. canadensis*, var. *spathulata* Fernald, Rhodora, xvi. 132 (1914).

Differing constantly from *A. canadensis* Greene not only in the cuneate-spatulate round-tipped basal leaves originally emphasized but in several other characters. In *A. canadensis* the assurgent stolons are numerous and the mats often several decimeters across; in *A. spathulata* the stolons are very few and mats 1 dm. across are rare. In *A. canadensis* the mature flowering stem is 3–5 dm. high, with 8–15 cauline leaves and very loose several-headed corymbs; in *A. spathulata* the mature flowering stems are 0.8–2 dm. high, with 4–7 cauline leaves and dense glomerules of 2–5 heads. Besides the material cited the following should be noted as much more fully representing this endemic Newfoundland species: humus and turf on the limestone tableland, altitude 200–300 m., Table Mountain, Port à Port Bay, July 16 & 17, 1914, *Fernald & St. John*, no. 10,870.

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[1] Rhodora, xvi. no. 187, July, 1914.

[2] Fernald, Rhodora, l. c. 132 (1914).

A. **albicans**, n. sp., planta humifusa, stolonibus foliosis perbrevibus (ad 2 cm. longis); foliis basilaribus spathulatis subacutis vel obtusis vix mucronatis 3–8 mm. longis 2–3 mm. latis supra albidis, tomento denso minuto sublucidoque; caule florifero 4.5–9 cm. alto gracile subremote folioso; foliis caulinis 9–15 linearibus 6–12 mm. longis 1–2 mm. latis, mediis attenuatis apice subulato, superioribus apice scarioso glabro lineari 2–2.5 mm. longo; capitulis femineis (1–)2–5 glomerulatis turbinato-campanulatis; involucro 4.5–6 mm. alto 4.5–6 mm. lato (in specimine siccato); bracteis 2–3-seriatis subaequalibus, exterioribus 3–4 mm. longis oblongis vel lanceolatis obtusis vel subacutis stramineis vel brunneis basi virescentibus paulo lanatis, interioribus oblongis obtusis erosis lacteis.

Plant humifuse, the leafy stolons very short (up to 2 cm. long): basal leaves spatulate, subacute or obtuse, scarcely mucronate, 3–8 mm. long, 2–3 mm. wide, white above with dense minute somewhat shining tomentum: flowering stem 4.5–9 cm. high, slender, somewhat remotely leafy: cauline leaves 9–15, linear, 6–12 mm. long, 1–2 mm. wide; the median attenuate, subulate at tip; the upper with a glabrous linear scarious tip 2–2.5 mm. long: pistillate heads (1–)2–5 in glomerules, turbinate-campanulate: involucre 4.5–6 mm. high, 4.5–6 mm. wide (in dried specimen): bracts in 2–3 series, subequal: the outer 3–4 mm. long, oblong or lanceolate, obtuse or subacute, straw-colored or brown, green and a little lanate at base; interior oblong obtuse, erose, milk-white.— NEWFOUNDLAND: dry limestone shingle on one of the northern domes of Table Mountain, Port à Port Bay, July 16 & 17, 1914, *Fernald & St. John*, no. 10,869 (TYPE in Gray Herb.).

Nearly related to *A. subviscosa* Fernald, RHODORA, xvi. 131 (1914), but that species has very long subligneous freely branching bases, the basal leaves with much looser dull tomentum, the scarious appendages of the upper cauline leaves very pubescent, the upper leaves and the inflorescence glandular, and the inner bracts of the involucre narrow and acute.

GRAY HERBARIUM.

THE TWENTIETH ANNUAL FIELD MEETING OF THE VERMONT BOTANICAL CLUB was held at Fairhaven, Thursday, Friday and Saturday, July 9, 10 and 11, 1914. Headquarters were at Hotel Allen which sets an unexcelled table. Thursday forenoon was spent near the village on some of the hills of slate rock and at a small place owned by Mr. Ellis, one of the members, who is trying out a great many plants of economic value — fruits, nuts, berries, etc., some of which were the black walnut, fig, olive, a *Physalis* which makes a delicious preserve sampled by the Club, an *Amelanchier* with specially fine fruit, various garden herbs, etc.

The afternoon was spent in a cedar swamp, where, besides the usual plants of such places, the swamp valerian, *Valeriana uliginosa*, and some hybrid ferns were found. *Calypso borealis*, however, was sought in vain.

Friday was spent at West Haven about the ponds and cliffs of that region. At the ponds were found, among other things, the water star-grass *Heteranthera dubia* and on the cliffs grew luxuriant specimens of the purple cliff brake, *Pellaea atropurpurea*, the slender cliff brake, *Cryptogramma Stelleri*, the wall rue spleenwort, *Asplenium Ruta-muraria* and the maiden-hair spleenwort, *Asplenium Trichomanes*. Special attention was paid to the blackberries on all the trips.

Carver's Falls on the Poultney River was to have been the objective point Saturday morning but lack of water owing to drought and a new dam made conditions unfavorable and instead several of the members took a side trip to Lake Bomoseen on their way back to Rutland.

There was a very good attendance — thirty members being present. The weather was perfect and the meeting proved both instructive and enjoyable.— NELLIE F. FLYNN, Burlington, Vermont.

THE CAMBRIDGE BRITISH FLORA.— The first volume of the long-awaited Cambridge British Flora [1] has come to hand. It is in reality Volume II; and as a forerunner of the others of the series is of unusual interest to American botanists since, of the recognized British species discussed and illustrated (about 130) in the groups covered — *Salicaceae* to *Chenopodiaceae* — two-thirds are members of our own flora as well. In presswork, paper and binding the book is dignified and sumptuous, as would be expected from the Cambridge University Press. In arrangement the work comes to date and, the Introduction tells us, is the first British flora based upon the system of Engler & Prantl. In nomenclature the international rules adopted at Vienna and Brussels are followed as are the international recommendations of groups to be recognized (species, variety, forma, etc.); but with occasional intentional departures from the nomenclatorial rules and recommendations such as many authors feel it incumbent upon themselves to make, although by so doing they defer the day of stability in our nomenclature.

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[1] The Cambridge British Flora by C. E. Moss, D. Sc., F. L. S. assisted by specialists in certain genera. Illustrated from drawings by E. W. Hunnybun. Vol. II. Salicaceae to Chenopodiaceae, small folio, pp. xx + 206, with text-maps and 206 plates. Cambridge (England) and New York; The Macmillan Co. 1914. $12.50 net.

The text is very full and is accompanied by text-maps showing the distribution of each species in the British Isles, and each accepted species is illustrated by a full-page line-drawing plate. When compared with the excellence of the text, the plates are disappointing for, although faithful in outlines, they fail to catch much of the "gesture" of the plant, and in many cases they do not bring out clearly the technical diagnostic characters which a critical student is anxious to see. It is furthermore probable that the desired contrasts would be better emphasized if some of the closely related species could be illustrated on one plate; and at the same time, the plates would, in many cases, give less the impression of occupying needless space. For instance, everyone who has studied intensively our annual species of *Salicornia* is interested in Dr. Moss's attempts to segregate them and would be greatly aided in understanding the proposed species if diagnostic figures could be seen side-by-side; but in the Cambridge British Flora each species, however small the plant, is given a full plate, with the result that 100 sq. dm. of plate-paper are used to bring out the figures (not entirely convincing) of the annual species of *Salicornia*, which in the aggregate occupy only 25 sq. dm. of space.

In the recognition of species the Introduction states that "a middle course is desirable." Probably all of us, however radical, will readily subscribe to this ideal; the difficulty is clearly to see and to follow the "middle course." In many of the technical groups — the *Salicaceae*, *Betulaceae* and *Polygonaceae*, for example — the treatments are obviously guided by this precept and systematists throughout the northern hemisphere will find much in the elaboration of these families that will be directly serviceable or at least suggestive in the working out of their own local problems. But it will require a much-altered conception of specific values to accept without question all the "species" recognized in the *Atriplex patula* series or in *Salicornia*. For example, it is not clear to the uninitiated that in *Salicornia* such diagnostic statements as the following are indicative of distinct species:—

"5. **S. pusilla** (p. 193). *Stem* erect, up to about 1·0 to 1·5 dm. high, branches curved-ascending. *Terminal spikes* short, up to about 5–12 mm. long, with about 2–4 flowering segments. *Lateral flowers* smaller than the central one. *Stamens* 1.

6. **S. gracillima** (p. 193). *Stem* erect, up to about 1·0 to 1·5, rarely 2·0 dm. high; branches regular, all or all except the lowest ones short (up to about 2·0–2·5 cm. long), subequal, parallel. *Terminal spikes* short (up to about 8–12 mm. long), stout, with 2–4 flowering segments. *Lateral flowers* smaller than the central one. *Stamens* 1."

S. pusilla and *S. gracillima* may possibly have specific or varietal characters, but neither the above-quoted portion of the conspectus nor the fuller descriptions nor the illustrations bring them out. In this connection it is illuminating to read in the Introduction that "We do not furnish any analytical or artificial keys to the groups of plants. These keys are scarcely ever satisfactory." Surely, however, a key could be provided which would bring out more clearly the *specific* differences, if they exist, in the annual Salicornias; or, if it is not possible to "key" the plants, they certainly do not deserve the exalted rank of species.

These criticisms are written in all friendliness and, frankly, from a sense of some disappointment; for the reviewer, who is confronted by many of the problems which have perplexed British botanists, had set an imaginary standard for the new Flora and had looked forward to its settling many of his own difficulties. That it does not in all details meet precisely this preconception is, of course, natural. It is an important and in some ways a great book; and everyone who wishes to keep abreast with the recent British work upon a flora in many features identical with our own will await expectantly the volumes as they come from the press.— M. L. F.

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